

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/038369

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 B01D46/24 B01D45/04 B01D50/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 923 975 A (ROBERT BOSCH GMBH; BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT) 23 June 1999 (1999-06-23) the whole document	1-9, 16
Y	----- US 6 572 667 B1 (GREIF VOLKER ET AL) 3 June 2003 (2003-06-03) the whole document	10, 11, 17
Y	----- WO 02/02206 A (DONALDSON COMPANY, INC) 10 January 2002 (2002-01-10) figures 1-8	10, 11, 17
X	----- US 2 771 153 A (HENNIG RALPH R) 20 November 1956 (1956-11-20) the whole document	1-17
X	----- US 2 771 153 A (HENNIG RALPH R) 20 November 1956 (1956-11-20) the whole document	1, 3, 4, 10, 16, 17
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

10 March 2005

Date of mailing of the international search report

21/03/2005

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 98/43723 A (PALL CORPORATION; LOCASALE, KENNETH) 8 October 1998 (1998-10-08) page 9, line 15 - line 21; figures 1-3</p> <p>-----</p>	1,10

# INTERNATIONAL SEARCH REPORT

Inter 21 Application No  
PCT/US2004/038369

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0923975	A	23-06-1999	DE 19756247 A1	24-06-1999
			DE 59808250 D1	12-06-2003
			EP 0923975 A1	23-06-1999
			ES 2199402 T3	16-02-2004
US 6572667	B1	03-06-2003	NONE	
WO 0202206	A	10-01-2002	US 6364921 B1	02-04-2002
			US 6387162 B1	14-05-2002
			AU 7169801 A	14-01-2002
			BR 0112027 A	13-05-2003
			CA 2413618 A1	10-01-2002
			CN 1438912 A	27-08-2003
			EP 1299171 A2	09-04-2003
			JP 2004501755 T	22-01-2004
			MX PA03000154 A	22-09-2003
			PL 359928 A1	06-09-2004
			WO 0202206 A2	10-01-2002
			US 2002178921 A1	05-12-2002
			US 2005039601 A1	24-02-2005
US 2771153	A	20-11-1956	NONE	
WO 9843723	A	08-10-1998	CA 2285288 A1	08-10-1998
			EP 1017473 A1	12-07-2000
			JP 2001518011 T	09-10-2001
			WO 9843723 A1	08-10-1998